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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,631	07/09/2003	Toshitaka Yamato	50687/DBP/A400	3402

23363 7590 02/05/2007		EXAMINER
CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068		WONG, NOBLE S

ART UNIT	PAPER NUMBER
2173	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/616,631	YAMATO ET AL.
	Examiner	Art Unit	
	Noble S. Wong	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *09 July 2003*.
2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-18* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-18* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All   b) ☐ Some * c) ☐ None of:
        1. ☒ Certified copies of the priority documents have been received.
        2. ☐ Certified copies of the priority documents have been received in Application No. _____.
        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/9/03 to 12/12/06*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Specification

1.   Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.   Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 17 recites "A software structure" but does not positively recite that the software structure is stored on a computer medium that can be read by a machine. As such, the claimed subject mater is directed to software per se since the claim does not require any physical

transformation and the invention as claimed does not produce a useful, concrete, and tangible

result to form the basis of statutory subject matter under 35 U.S.C 101.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-11, 13-15, and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated

by Humpleman et al. (US Patent # 7,039,858 B1).

As to independent claim 1, Humpleman et al. teach a control system for electrical

equipment comprising

- an electrical equipment group including at least one piece of electrical equipment (home device 302) and
- a control unit or units connected to said electrical equipment group (DTV 102), wherein:
- a GUI for controlling said electrical equipment group has a dual structure comprising
    - a functional GUI with respect to the function of said electrical equipment (i.e. home page 904) and
    - a main GUI with respect to said whole control system for electrical equipment (i.e. device link page 710);
- said electrical equipment has a functional GUI data storage means for storing GUI data for said functional GUI (i.e. sent by HTML, see col. 6 lines 51-67); and
- said control unit has
    - a main GUI data storage means for storing GUI data for said main GUI (i.e. by a storage representing device link page 710 for a HTML file) and
    - a GUI processing software storage means for storing a GUI processing software for providing said GUI based on each of said GUI data for said functional GUI and said main GUI and for controlling said electrical equipment (i.e. by a storage representing home page 904 for a HTML file).

As to claim 2, Humpleman et al. teach a control system for electrical equipment

according to claim 1, wherein said main GUI has a function to perform the process including

- display of an initial and/or final screen, display of menu, change of a screen and/or voice message corresponding to a condition of said electrical equipment group (i.e. link page 710 displays available devices connected), and
- storage and/or invoking of the last final condition of the control system for electrical equipment (i.e. home page 904, Fig. 11, shows the last final, or current condition of "Jim's DVD" to be "Playing Ben Hur"), and
- said functional GUI has a function to perform the process including control of the corresponding electrical equipment, display of a condition of the corresponding electrical equipment (i.e. home page 904, Fig. 11, shows the last final, or current condition of "Jim's DVD" to be "Playing Ben Hur", and shows several controls for the playback of Jim's DVD player, like eject, play, and pause), and
- storage and/or invoking of the last final condition of the control system for electrical equipment (i.e. invoking the condition by a control application associated with the device, see col. 19 lines 54-65).

As to claim 3, Humpleman et al. teach a control system for electrical equipment

according to claim 1, wherein each of said GUI data comprises

- GUI transition data defining the state transition of a GUI screen and/or the movement of object(s) constituting said GUI (i.e. session page 902 updates itself with available devices, in link page 710, and user interaction with services, in home page 902) and
- GUI layout data defining the layout and/or design of said object(s) (i.e. layout defined by session page 902).

As to claim 4, Humpleman et al. teach a control system for electrical equipment

according to claim 3, wherein said GUI layout data is described in text (i.e. in HTML (hypertext)

for session page 902 on DTV 202, see col. 7 lines 7-27 or text shown in session page 902, see

Fig. 11).

As to claim 5, Humpleman et al. teach a control system for electrical equipment

according to claim 1, wherein said system further has

- a GUI data transfer and storage means for transferring and storing the GUI data of the functional GUI corresponding to the electrical equipment connected upon the start-up of the

control system for electrical equipment to the control unit (i.e. a session page is generated depending on available devices for control, see col. 14 lines 15-24), and

- said GUI is provided by said GUI processing software based on the GUI data stored in the GUI data transfer and storage means (i.e. by the storage for HTML files).

As to claim 6, Humpleman et al. teach a control system for electrical equipment according to claim 5, wherein the GUI data of said main GUI is also transferred to, and stored in, said GUI data transfer and storage means (i.e. the HTML file is transferred to the DTV 202 for control see col. 7 lines 7-27).

As to claim 7, Humpleman et al. teach a control system for electrical equipment according to claim 5, wherein said main GUI data storage means functions also as said GUI data transfer and storage means (i.e. the HTML file is transferred to the DTV 202 for control see col. 7 lines 7-27).

As to claim 8, Humpleman et al. teach a control system for electrical equipment according to claim 5, wherein said control unit further has a connected electrical equipment storage means for registering the electrical equipment connected to the control unit upon the last shut-down of the control system for electrical equipment, and thereby, among the electrical equipment connected to the control unit upon the start-up of the control system for electrical equipment, for the electrical equipment consistent with those registered in the connected electrical equipment storage means, the GUI data which has been stored in said GUI data transfer and storage means is used without newly transferring and storing the GUI data of the functional GUI corresponding to the electrical equipment (i.e. the device list file is updated depending on available registered devices and stored on DHCP database 314, see col. 12 lines 20-29, and is used when needed independent on the on/off status of the control interface of DTV 202).

As to claim 9, Humpleman et al. teach a control system for electrical equipment according to claim 8, wherein said control unit further has a GUI data erasing means for erasing, from said GUI data transfer and storage means, the GUI data of the functional GUI corresponding to the electrical equipment inconsistent with those connected to the control system for electrical equipment upon the start-up thereof, among the electrical equipment corresponding to the GUI data registered in said GUI data transfer and storage means (i.e. the device list file is updated depending on available registered devices and stored on DHCP database 314, see col. 12 lines 20-29, and is used when needed independent on the on/off status of the control interface of DTV 202).

As to claim 10, Humpleman et al. teach a control system for electrical equipment according to claim 9, wherein said GUI data erasing means further has a function to maintain the GUI data of the functional GUI corresponding to the electrical equipment previously registered, rather than erase it (i.e. the device list file is updated depending on available registered devices and stored on DHCP database 314, see col. 12 lines 20-29).

As to claim 11, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein said system further has a whole GUI data storage means for previously storing GUI data of the functional GUI corresponding to the electrical equipment connectable to said control unit and a GUI data extraction means for extracting the GUI data corresponding to the electrical equipment connected upon the start-up of the control system for electrical equipment from the GUI data stored in the whole GUI data storage means, and said GUI processing software provides said GUI based on the GUI data extracted from the whole

GUI data storage means by the GUI data extraction means (i.e. a session manager creates and provides a GUI dependent on the status of the system, see col. 9 lines 28-45).

As to claim 13, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein said system further has a function to update said main GUI and/or said functional GUI by updating all or part of the GUI data stored in said main GUI data storage means and/or said functional GUI data storage means and/or said GUI data transfer and storage means based on the GUI data stored in the functional GUI data storage means of electrical equipment to be newly connected (i.e. the device list file is updated depending on available registered devices and stored on DHCP database 314, see col. 12 lines 20-29, and is used when by the session manager, see col. 9 lines 28-45, when needed independent on the on/off status of the control interface of DTV 202).

As to claim 14, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein said control unit is provided with drive(s) for a external storage medium, and further has a function to update said main GUI and/or said functional GUI by reading the GUI layout data stored in the external medium and, based on the GUI layout data, updating all or part of the GUI data stored in said main GUI data storage means and/or the functional GUI data storage means and/or the GUI data transfer and storage means (i.e. different program guides can be created from television programming services, see col. 22 line 55 – col. 23 line 4, or from media connected to the network, see col. 23 lines 24-35 to update information displayed on the GUI).

As to claim 15, Humpleman et al. teach a control system for electrical equipment according to claim 1, wherein said system further comprises a web browser, and said GUI data is

described in XML, and said system further comprises an XML parser which is shared by said

web browser and said GUI processing software (i.e. XML can be used and viewed in a browser

based network, and one skilled in the art would appreciate that XML can be parsed by a browser

to convert XML to data viewed on a screen, see col. 4 lines 5-21).

As to independent claim 17, Humpleman et al. teach a software structure for GUI

processing, in a control system for electrical equipment comprising

- an electrical equipment group including at least one piece of electrical equipment (home device 302) and
- a control unit or units connected to said electrical equipment group (DTV 102), providing a GUI for controlling said electrical equipment group (on DTV 102), wherein:
- said GUI has a dual structure comprising
   o a functional GUI with respect to the function of said electrical equipment (i.e. home page 904) and
   o a main GUI with respect to said whole control system for electrical equipment (i.e. device link page 710);
- said software structure for GUI processing comprises
   o functional GUI data defining said functional GUI (i.e. home page 904 represented by a HTML file),
   o main GUI data defining said main GUI (i.e. device link page 710 represented by a HTML file), and
   o a GUI processing software for providing said GUI based on each of said GUI data and for controlling said electrical equipment (i.e. a session manager, see col. 9 lines 28-45); and
- each of said GUI data comprises GUI transition data defining the state transition of a GUI screen and/or the movement of object(s) constituting said GUI and (i.e. session page 902 updates itself with available devices, in link page 710, and user interaction with services, in home page 902)
- GUI layout data defining the layout and/or design of said object(s) (i.e. layout defined by session page 902).

As to independent claim 18, Humpleman et al. teach a method for providing a GUI for

controlling an electrical equipment group in a control system for electrical equipment comprising

an electrical equipment group including at least one piece of electrical equipment (home device

302) and a control unit or units connected to said electrical equipment group (DTV 102),

comprising the steps of:

- providing said electrical equipment with a functional GUI data storage means for storing
  GUI data for a functional GUI with respect to the function of said electrical equipment (i.e.
  storage for session page 902 represented by HTML file));
- providing said control unit with
  - a main GUI data storage means for storing GUI data for a main GUI with respect to
    said whole control system for electrical equipment (i.e. storage for device link page
    710 represented by HTML file) and
  - a GUI processing software storage means for storing a GUI processing software for
    providing said GUI based on each of said GUI data for said functional GUI and said
    main GUI and for controlling said electrical equipment (i.e. storage for home page
    904 represented by HTML file); and
- providing said GUI for controlling said electrical equipment group, having
  - a dual structure comprising said functional GUI and said main GUI, based on said
    GUI data for said functional GUI stored in said functional GUI data storage means of
    said electrical equipment (i.e. session page 902 includes home page 904 for function
    and device link page for devices 710) and
  - said GUI data for said main GUI stored in said main GUI data storage means of said
    control unit, through said GUI processing software stored in said GUI, processing
    software storage means of said control unit (i.e. by HTML files, see col. lines 5-21).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman et al.

(US Patent # 7,039,858 B1) in view of Brownell et al. (US Patent # 6,336,147 B1).

        As to claim 12, Humpleman et al. teach a control system for electrical equipment

according to claim 5, but does not teach wherein said system further has an electrical equipment

connection number limiting means for limiting the number of the pieces of electrical equipment

connected to said control unit in accordance with the capacity of the storage means for storing

GUI data.

Brownell et al. teach wherein said system further has an electrical equipment connection

number limiting means for limiting the number of the pieces of electrical equipment connected to

said control unit in accordance with the capacity of the storage means for storing GUI data (see

col. 13 lines 38-61, 'Brownell).

Therefore, it would have been obvious to one of ordinary skill in the art, having the

teaching of Humpleman et al. and Brownell et al. before him at the time the invention was made,

to modify the system of connected components as taught by Humpleman et al. to include a

connection limiting method as taught by Brownell et al. with the motivation being to allow

"connections be terminate so as to free up capacity," (see col. 13 lines 49-50, 'Brownell).

8.   Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman et al.

(US Patent # 7,039,858 B1) in view of Stefaniak (US Patent # 6,550,054 B1).

As to claim 16, Humpleman et al. teach a control system for electrical equipment

according to claim 15, but does not teach wherein said system further has a function to convert

data, which is not GUI data described in XML which can be processed by said GUI processing

software, into GUI data described in XML which can be processed by said GUI processing

software.

Stefaniak teaches wherein said system further has a function to convert data, which is not

GUI data described in XML which can be processed by said GUI processing software, into GUI

data described in XML which can be processed by said GUI processing software (i.e. see col. 5 lines 5-30, 'Stefaniak).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teaching of Humpleman et al. and Stefaniak before him at the time the invention was made, to modify the system that accepts XML as taught by Humpleman et al. to include a way to covert data which is not in XML to XML format as taught by Stefaniak with the motivation being to "provide a method for reading and interpreting [data] ... to generate extensible Markup Language [data]." (see col. 1 lines 41-44, 'Stefaniak)·

Conclusion

9.   The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach a method for passing GUI data in a system of electronic equipment controlled by a device with a GUI for controlling that equipment.

Inquiries

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Noble S. Wong whose telephone number is (571) 270-1044. The examiner can normally be reached on M-F 7:30-5:00.
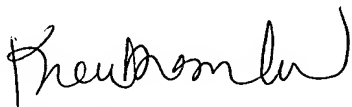
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Cabeça can be reached on (571) 272-4048. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Noble Wong
1/31/07

Kieu D. Vu
Primary Examiner